

## REMARKS

Claims 13-27 are pending.

Claims 17-19, 21, 23 and 27 stand rejected under 35 USC §112, first paragraph.

Claims 13-27 stand objected because of informalities.

Claims 13-14, 16, 17-18, 20, 21 and 25 stand rejected under 35 USC §103(a) as being unpatentable over the patent issued to Inoue (4,792,197) in view of Kashyap (6,307,679).

Claims 15 and 19 stand rejected under 35 USC §103(a) as being unpatentable over the patent issued to Inoue (4,792,197) in view of Kashyap (6,307,679) and further in view of Kashyap (5,377,288).

Claim 22 stands rejected under 35 USC §103(a) as being unpatentable over the patent issued to Scalora (5,907,427) in view of Inoue (4,792,197).

Claim 23, 24, and 26 stands rejected under 35 USC §103(a) as being unpatentable over the patent issued to Scalora (5,907,427) in view of Inoue (4,792,197) and Kashyap (6,307,679).

Claim 27 stand rejected under 35 USC §103(a) as being unpatentable over the patent issued to Inoue (4,792,197) in view of Kashyap (6,307,679) and further in view of Cook (5,629,998).

### Changes to claims:

Claims 17, 21, 23, 19, and 27 have been amended. No new matter has been added.

**Rejection under 35 USC §112, first paragraph – claims 17-19, 21, 23, and 27**

Claims 17-19, 21, 23, and 27 stand rejected under 35 USC §112, first paragraph. This rejection is respectfully traversed.

Claim 17, 19, 21, 23, and 27 have been amended to further particularly point out and distinctly claim subject matter that the Applicant regards as the invention.

Claim 17 has been amended to replace the phrase “said plate writing said interference pattern in the substrate” with “said interference pattern thus being written in the substrate”. This amendment is supported by the present specification at page 15, lines 8-10.

Claims 19 and 27 have been amended to replace the phrase “interferometric means coupled to said means for adjusting” with “interferometric means cooperating with said means for adjusting”. This amendment is supported by the present specification at page 15, lines 17-21, page 4, lines 18-25, and page 13, lines 10-12.

Claims 21 and 23 have been amended to replace the phrase “positioning a phase plate to create an interference pattern with a relative difference of  $\pi$ ” with “using a phase plate to create an interference pattern with a relative difference of  $\pi$ ”. This amendment is supported by the present specification at page 27, lines 23-30.

Therefore, Applicant respectfully requests that the 35 USC 112, first paragraph rejection be withdrawn.

**Claim Objections – claims 13-27**

Claims 13-27 have been objected to because of informalities. Claims 13-27 have been amended to overcome the Examiner’s objections. No new matter has been added.

**Rejection under 35 USC §103(a) – claims 13-14, 16, 17-18, 20, 21 and 25**

Claims 13-14, 16, 17-18, 20, 21, and 25 stand rejected under 35 USC §103(a) as being unpatentable over the patent issued to Inoue (4,792,197) in view of Kashyap (6,307,679). This rejection is respectfully traversed.

Under MPEP §706.02(j), in order to establish a prima facie case of obviousness required for a §103 rejection, three basic criteria must be met: (1) there must be some suggestion or motivation either in the references or knowledge generally available to modify the reference or combine reference teachings (MPEP §2143.01), (2) a reasonable expectation of success (MPEP §2143.02), and (3) the prior art must teach or suggest all the claim limitations (MPEP §2143.03). See In re Royka, 490 F. 2d 981, 180 USPQ 580 (CCPA 1974).

**Claim 13:**

The Office Action alleges that Inoue suggests that the phase plate may be placed at different positions and thus suggests that the plate may be displayed in translational sense. See Office Action page 5. The Office Action also alleges that Inoue teaches that the phase plate may be put at different angular positions.

On the other hand, claim 13 claims “a phase plate having an adjustable position and orientation **for each of said writing**”. The amendment to claim 13 is supported by the specification at page 28, lines 3-13, page 34, lines 1-9, page 39, lines 14-20, and page 40, lines 23-30. Neither Inoue nor Kashyap teach or suggest a phase plate having an adjustable position and orientation **for each** process. Inoue teaches “**disposing** a material at a position 21, 22, or 23” suggesting **statically positioning** before the process. See col.

2, line 45. Inoue teaches **statically** positioning at separate positions 21, 22, and 23 in a discontinuous manner such that a relative difference between two positions and orientations cannot be measured or controlled. In contrast, the presently claimed invention claims **dynamic positioning** during the process. Such process allows for easily erasing a previously written grating by adjusting the phase plate to a relative difference of  $\pi$ . Kashyap teaches an apparatus for forming a grating in an optical fiber. However, Kashyap does not teach or suggest a phase plate having an **adjustable position and orientation for each process**.

Thus, Applicant submits that claim 13 recites novel subject matter which distinguishes over any possible modification of Inoue and Kashyap.

Claims 14, 16, 17-18, 20, 21, 25:

The proposed combination of Kashyap and Inoue does not possess all of the claim limitations of claims 14, 16, 17-18, 20, 21, 25. The arguments set forth above are equally applicable here.

The presently claimed invention is, accordingly, distinguishable over the cited reference. In view of the foregoing, it is respectfully asserted that 13-14, 16, 17-18, 20, 21, and 25 are now in condition for allowance.

**Rejection under 35 USC §103(a) – claims 15 and 19**

Claims 15 and 19 stand rejected under 35 USC §103(a) as being unpatentable over the patent issued to Inoue (4,792,197) in view of Kashyap (6,307,679). This

rejection is respectfully traversed. The arguments set forth above are equally applicable here.

**Rejection under 35 USC §103(a) – claim 22**

Claim 27 stands rejected under 35 USC §103(a) as being unpatentable over the patent issued to Inoue (4,792,197) in view of Kashyap (6,307,679) and further in view of Cook (5,629,998). This rejection is respectfully traversed. The arguments set forth above are equally applicable here.

**Rejection under 35 USC §103(a) – claim 22**

Claim 22 stands rejected under 35 USC §103(a) as being unpatentable over the patent issued to Scalora (5,907,427) in view of Inoue (4,792,197). This rejection is respectfully traversed. The arguments set forth above are equally applicable here.

**Rejection under 35 USC §103(a) – claims 23, 24, and 26**

Claim 23, 24, and 26 stands rejected under 35 USC §103(a) as being unpatentable over the patent issued to Scalora (5,907,427) in view of Inoue (4,792,197) and Kashyap (6,307,679). This rejection is respectfully traversed. The arguments set forth above are equally applicable here.

**Rejection under 35 USC §103(a) – claim 27**

Claim 27 stand rejected under 35 USC §103(a) as being unpatentable over the patent issued to Inoue (4,792,197) in view of Kashyap (6,307,679) and further in view of

Cook (5,629,998). This rejection is respectfully traversed. The arguments set forth above are equally applicable here.

**Conclusion**


For all of the above reasons, applicant submits that the amended claims are now in proper form, and that the amended claims all define patentability over the reference. Therefore, Applicant submits that this application is now in condition for allowance.

**Request for allowance**

It is believed that this Amendment places the above-identified patent application into condition for allowance. Early favorable consideration of this Amendment is earnestly solicited. If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

Respectfully submitted,  
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